

CLAIMS

1. A disposable blood test device comprising:
a substrate configured for carrying a chemical reagent; and
circuitry formed on the substrate, the circuitry comprising:
a sensor portion associated with the chemical reagent to enable measurement of at least one of a presence and a concentration of a blood analyte; and
an information storage portion configured to store information indicative of a property of the chemical reagent.
2. The test device of claim 1, comprising an input and output arrangement formed on the substrate and in electrical communication with the information storage portion to enable a meter to access the information from the information storage portion for calibrating the meter.
3. The test device of claim 1, wherein the information storage portion is electrically connected to a portion of the sensor portion of the circuitry, and includes at least one electrically conductive element having an electrical characteristic that is indicative of the property of the chemical reagent.
4. The test device of claim 3, wherein the at least one electrically conductive element comprises a plurality of electrically conductive elements wherein each element is configured to be physically altered and the number of the altered elements produces an electrical characteristic that is indicative of the property of the chemical reagent.
5. The test device of claim 4, wherein the electrical characteristic is an impedance and the electrically conductive elements of the information storage portion are at least one of:

a plurality of inductors arranged in series; and
a plurality of capacitors arranged generally in parallel between a portion of the sensor portion and an input and output conductive element of the information storage portion.

6. The test device of claim 4, wherein each electrically conductive element is configured for alteration by at least one of punching, drilling, shorting via fusible link, and etching to produce the value of the electrical characteristic for the plurality of electrically conductive elements that corresponds to the property of the chemical reagent.

7. The test device of claim 1, wherein the test device comprises one of a set of test devices with the information storage portion of each test device storing substantially the same information in the information storage portion to be indicative of the property of the chemical reagent for the set of test devices.

8. The test device of claim 1, wherein the circuitry of the substrate comprises a semiconductor portion and the circuitry defines a non-volatile memory configured to store the information.

9. The test device of claim 8, and further comprising an electrical signal generator external to the test device and configured to send an electrical signal to the non-volatile memory to cause storage of the information in the information storage portion of the test device.

10. The test device of claim 8, wherein the non-volatile memory is configured to also store at least one of a date of manufacture, an operating characteristic, and serial number.

11. A method of manufacturing a test device for the detection of a blood analyte comprising:

forming circuitry on a substrate of the test device, the circuitry including a sensor portion and a configurable portion;

depositing a chemical reagent on the sensor portion that enables detection of the blood analyte; and

storing information in the configurable portion that is indicative of a property of the test device.

12. The method of claim 11, and comprising:

determining a property of the test device comprising at least one of determining a property of the chemical reagent, a date of manufacture, an analyte array identifier, and an operating characteristic.

13. The method of claim 12, wherein storing information in the configurable portion comprises storing at least one of the property of the chemical reagent, the date of manufacture, the analyte array identifier, and the operating characteristic.

14. The method of claim 11, wherein forming the configurable portion of the circuitry comprises forming a thin film circuitry portion on the substrate that defines a non-volatile memory portion, and wherein storing information in the configurable portion comprises sending an electrical signal to the configurable portion to store a value in the non-volatile memory portion.

15. The method of claim 11, wherein forming the configurable portion of the circuitry comprises forming at least one electrically conductive element on the substrate, and wherein storing information in the configurable portion comprises physically altering a portion of the electrically conductive element to indicate the property of the chemical reagent.

16. The method of claim 15, and comprising:

measuring the property of the chemical reagent to determine a calibration factor for the test device,

wherein forming at least one electrically conductive element on the substrate comprises forming a plurality of electrically conductive elements on the substrate and wherein storing information in the configurable portion comprises altering at least one of the plurality of electrically conductive elements, wherein the number of altered electrically conductive elements is indicative of the calibration factor of the test device.

17. The method of claim 16, wherein altering the at least one of the electrically conductive elements comprises disabling the at least one of the electrically conductive elements by at least one of physically removing a conductive portion of the electrically conductive element and physically adding a conductive portion to the electrically conductive element.

18. A single disposable test strip comprising:
means for chemically reacting with a blood analyte of a blood sample;
means for sensing, based on the means for chemically reacting, the blood analyte; and
means for electrically storing calibration information corresponding to a property of the disposable test strip.

19. The test strip of claim 18, wherein the means for electrically storing comprises:
a plurality of electrically conductive elements wherein each element is physically alterable during manufacture of the test strip so that a number of altered elements provides an electrical characteristic that corresponds to the property of the disposable test strip.

20. The test strip of claim 18, wherein the means for electrically storing is inseparable from the disposable test strip.